



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: LF507-1F, -1H
 UNIQUE ID NUMBER: 1TL004
 COMBUSTOR:
 ENGINE TYPE: TF

BYPASS RATIO: 5.1
 PRESSURE RATIO (π_{00}): 13.0
 RATED THRUST (F_{00}) (kN): 31.0

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	16.7	110.6	40.4	13.6
AS % OF ORIGINAL LIMIT	85.2	93.7	61.2	41.7
AS % OF CAEP/2 LIMIT (NO _x)			76.5	
AS % OF CAEP/4 LIMIT (NO _x)			77.8	
AS % OF CAEP/6 LIMIT (NO _x)			78.3	
AS % OF CAEP/8 LIMIT (NO _x)			83.3	

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES
 - DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 x OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	0.358	0.01	0.20	14.52	10.3
CLIMB OUT	85	2.2	0.296	0.01	0.30	12.02	10.2
APPROACH	30	4.0	0.108	0.12	4.43	6.39	6.9
IDLE	7	26.0	0.045	4.72	37.83	3.28	6.8
LTO TOTAL FUEL (kg) or EMISSIONS (g)			151	337	2803	1086	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				10.8	90.1	34.9	10.6
SIGMA (D _p /F ₀₀ in g/kN, or SN)							
RANGE (D _p /F ₀₀ in g/kN, or SN)							

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 20 (% CORE FLOW) AT 9.41kN POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	101.3-102.4
TEMPERATURE (K)	276-280
ABS HUMIDITY (kg/kg)	0.0023-0.0038

FUEL

SPEC	0.81
H/C	1.92
AROM (%)	19.7

MANUFACTURER: Textron Lycoming
 TEST ORGANIZATION: Textron Lycoming
 TEST LOCATION: Stratford, CT
 TEST DATES: 19/12/1990-20/12/1990

REMARKS

Compliance with Fuel Venting requirements: - ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)